

RUSECHUK, G.M.; YEGEREVA, Ye.O.

Investigating the effectiveness of using experimental calculations  
in designing concrete mixes with a given strength. Trudy  
Giprotsement no. 21:84-97 '59. (MIRA 13:12)  
(Concrete)

RUSHCHUK, G. M.; SHTEYYERT, N. P.; YEGEREVA, Ye. G.

New standard for the physical and mechanical testing of cement.  
Trudy Giprotsement no. 26:162-192 '63. (MIRA 17:5)

PA 240T36

USSR/Electricity - Standards  
Electrical Units  
Mar 52

"Practical Unit of Measurement for Current in the  
MKSA System," Engr-Capt A. Ya. Yegerman, Riga

"Elektrichestvo" No 3, pp 68, 69

Author objects to highly abstract definition of  
"ampere" in plan developed with participation of  
Committee on Matters of Measures and Measuring  
Devices, in contrast to concrete methods for  
defg other units in MKSA system (meter, kilogram,

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second). Ampere is defined as coulomb per sec,  
coulomb being basic unit. Author feels ampere  
should be basic unit or definable independent of  
coulomb. Article was published to encourage dis-  
cussion.

240T36

YEGERMAN, A. YA.

YEGHERMAN, B.

Public university for improving classifications. NTO 2  
no.7:47 J1 '60. (MIRA 13:7)  
(Moscow---Technical education)

YEGERMAN, B.

Machinery industry workers are learning. NTO 5 no.11:29-30 N '63.  
(MIRA 16:12)

1. Direktor Obshchestvennogo zaochnogo universiteta Nauchno-tekhni-  
cheskogo obshchestva mashinostroitel'noy promyshlennosti.

Y ECHINER, B. G.

The calculation and construction of metal-cutting machines. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1950. 352 p. (51-28309)

TJ1230.E28

YEGHERMAN, B.G., inzhener.

Public University of the Scientific and Technical Society of the  
Machinery Industry. Mashinostroitel' no.6:48 Je '57. (MIRA 10:7)  
(Mechanical engineering--Study and teaching)

YEGHERMAN, B., <sup>G</sup>prepodavatel'; SOKOLOV, A., otvetstvennyy red.

[Fundamentals of the technology of the machining of metals; program for specialized secondary schools in subjects: "Radio manufacture," "Manufacture of radio insulating materials and radio parts," "Manufacture of apparatus for wire communications," and "Equipment for the manufacture of electric vacuum devices"] Osnovy tekhnologii mekhanicheskoi obrabotki metallov; programma dlia srednikh spetsial'nykh uchebnykh zavedenii po spetsial'nostiam: "Radioapparatostroenie," "Proizvodstvo radioizolatsionnykh materialov i radiodetalei," "Apparatostroenie provodnoi svyazi" i "Oborudovanie elektrovakuumnogo proizvodstva." Moskva, 1958. 26 p. (MIRA 11:8)

1. Russia (1923- U.S.S.R.) TSentral'nyy uchebno-metodicheskiy kabinet po srednemu spetsial'nomu obrazovaniyu. 2. Moskovskiy radiotekhnicheskiy tekhnikum (for Yegherman).

(Metal cutting--Study and teaching)



VOSHCHANOV, K.P.; YEGERMAN, B.G.

Volunteer-staffed University of the Scientific Technological Society of the Machinery Industry for increasing the qualifications of welding engineers and technicians. Svar.proizv. no.1:41-42 Ja '62. (MIRA 15:3)

1. Predsedatel' Metodicheskogo soveta zaachnykh kursov usovershenstvovaniya inzhenerno-tekhnicheskikh rabotnikov po tekhnologii i oborudovaniyu svarochnogo proizvodstva pri Obshchestvennom universitete Nauchno-tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosti (for Voshchanov). 2. Direktor Obshchestvennogo universiteta Nauchno-tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosit (for Yegerman).

(Welding--Study and teaching)

1. EGERMAN, Eng., BALAKIN, Eng.
2. USER (600)
4. Milling Machinery
7. Rotation of mill drum. Eng. Egerman, Eng. Balakin. Rab. energ. 3, No. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

1. EGGERMAN, V. F., Eng.
  2. USSR (600)
  4. Milling Machinery
  7. Bucker for unloading balls from the mill, Rab. energ. 3 No. 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

YEGHERMAN, U.F., inzhener.

Bucket belt conveyer for loading balls into a mill. Energetik 1 no.2:13-  
14 J1 '53. (MLRA 6:8)

(Conveying machinery)

YEGERMAN, U.F., inzhener.

Unloading mill balls. Energetik 1 no.6:19-20 H '53.

(MIRA 6:11)  
(Milling machinery)

YEGHERMAN, V.F., inzhener.

"Tenon joining" of tubes in the combustion zone of boilers. Energetik  
2 no.2:13-14 Y '54. (MLRA 7:4)

(Steam boilers)

YEGERMAN, U.F.

YEGERMAN, U.F., inzhener.

Practical construction of scaffolds for work in a boiler furnace.  
Energetik 2 no.3:10-11 Mr '54. (MLRA 7:5)  
(Furnaces) (Scaffolding)

YAGGERMAN, U.F., inzhener.

Screen for sorting balls without removing them from the mill.  
Energetik 2 no.5:12 My '54. (MLRA 7:6)  
(Milling machinery)



YEGGERMAN, U.F., inzhener.

Skip hoist for loading balls into a mill. Elek.sta. 25 no.3:51 Mr '54.  
(MLRA 7:6)

(Furnaces)

YEGHERMAN, U.F., inzhener.

Centralized preparation and pneumatic delivery of lining solution  
and of heat-insulating material. Elek. sta. 25 no.6:46-48 Je '54.  
(Steam boilers) (Conveying machinery) (MLRA 7:7)

Egermat, U.S.S.R.

Distr: 4E2b

12  
~~Apparatus for sorting balls of drum mills, U. F.~~  
~~Egermat, U.S.S.R. 107,147, Aug. 25, 1957. Within the~~  
mill, screens are arranged in such manner that the balls are  
caught up on them and are discharged inside the mill.  
The damaged balls are caught in the lowest of the screens  
which extends outside the mill and discharges the damaged  
balls on side.

M. Hovh

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YEGERMAN, U. F., inzh.

Repair and replacement of armor in a ball mill. Energetik 8 no. 18-  
23 Ap '60. (MIRA 13:8)

(Crushing machinery)

YEGERMAN, U.F., tekhnik

Mechanization of the operations of coal-grinding mills. Energetik 8  
no.11:17-21 N '60. (MIRA 13:12)

(Electric power plants--Equipment and supplies)  
(Coal-handling machinery)

YEGERMAN, U.F., inzh.

Mechanization of rigging operations in the repair of coal  
pulverizing equipment. Energetik 9 no.11:15-19 N '61.

(MIRA 14:12)

(Electric power plants---Equipment and supplies)  
(Coal, Pulverized)

YEGERMAN, U.F., inzh.

Improvement in the efficiency of ball mills lubrication systems.  
Elek.sta.33 no.2:6-10 F '62. (MIRA 15:3)  
(Electric power plants--Equipment and supplies)  
(Milling machinery)

YNGERMAN, Ya. B.

VEKS - 01 vectorcardiograph, a diagnostic apparatus. Med.prom. 11  
no.6:47-50 Je '57. (MIRA 10:8)

1. Moskovskiy gosudarstvennyy soyuznyy zavod elektromeditsinskoy  
apparatury "EMA"  
(ELECTROCARDIOGRAPHY)



YEGERMAN, Ye.B.

~~SECRET~~  
New portable diagnostic apparatus. Med.prom. 12 no.6:56-58  
Je '58 (MIRA 11:7)

1. Moskovskiy zavod elektromeditsinskoy apparatury "EMA".  
(ELECTROCARDIOGRAPHY)

KUZIN, M.I.; ZHUKOVSKIY, V.D.; SACHKOV, V.I.

Use of interferential currents in combined anesthesia in surgery. Eksp. khir. i anest. 8 no.5:57-60 S-D '63.

(MIRA 17:6)

1. Kafedra fakul'tetskoy khirurgii (zav.- prof. N.N. Elanskiy),  
kafedra fiziki (zav.- prof. N.M. Liventsov) I Moskovskogo ordena  
Lenina meditsinskogo instituta imeni I.M. Sechenova i laboratoriya  
eksperimental'noy fiziologii (zav.- prof. V.A. Negovskiy) AMN SSSR.

YEGERMANIS, Ya. Ya.

22713 Egermanis, Ya. Ya. Ostraya kishechnaya neprokhodimost'. (Po materialam  
rizhsk. 1-Y Gor. Klinich. Bol'nitsy za 1934-1947 GG. ) Zdravookhraneniye Sov.  
Latvii, SB. 3, 1949, S. 53-61 -Rezyume na latysh. Yaz.

SO: LETOPIS' No. 30, 1949

BERTSE, Vizbul [~~Berose~~, Vizbulis]; KLAVINA, L., red.; YEGERS, A. [~~Jegers~~, A.], red.; SPORANE, V., tekhn. red.

[An editorial staff on wheels; a reportage from the Far East] Redakcija uz riteniem; reportaza no Talajiem Austrumiem. Riga, Latvijas Valsts izdevnieciba, 1961. 216 p. [In Latvian] (MIRA 14:13)  
(Soviet Far East--Description and travel)

YECEUBAYEV, S.Kh.; KUZNETSOV, D.A.; ZUBOVA, I.Ye.

Reduction of potassium ferrite. Trudy MKHTI no.47:125-128 '64.

Reduction of potassium ferrite. Ibid.:129-133 (MIRA 18:9)

YEGEUBAYEV, S.Kh.; BOGDOLINA, S.A.; KILNETSOV, P.A.; ZUBOVA, I.Ye.

Distribution of promoters in iron catalysts for ammonia synthesis.  
Kin. i kat. 6 no.4:754-757 31-Ag '65. (MIRA 18:9)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.Mendeleyeva.

YEGIAZAROV, A.

Centennial of the First Russian balneologic society. Azerb. med.  
zhur. 41 no.2:85-87 F '64 (MIRA 18:1)

1. Sekretar' nauchno-kurortnoy komissii Azerbaydzhanskogo res-  
publikanskogo soveta po upravleniyu kurortami professional'-  
nykh soyuzov.

YEGIAZAROV, A.G. Cand Tech Sci -- (diss) "Study of the  
thermal <sup>system</sup> ~~system~~ of seed beds with water heating." Mos, 1957  
11 pp. (Min of Higher Education USSR. Mos Order of Labor  
Red Banner Construction Engineering Inst im V.V. Kuybyshev).  
110 copies.  
(KL, 8-58, 105)

-24-



ASKEROV, A.G., red.; GUSEYNOV, A.G., red.; GUSEYNOV, M.M., red.;  
BABAYEV, A.M., red.; YEGIAZAROV, A.G., red.

[Study and utilization of mineral water resources in the  
Azerbaijan S.S.R.] Issuchenie i osvoenie gidromineral'nykh  
resursov Azerbaidzhanskoi SSR; trudy. Baku, AN Azorb.SSR,  
1962. 157 p. (MIRA 16:12)

1. Azerbaidzhanskaya respublikanskaya gidrologicheskaya  
nauchnaya sessiya, posvyashcheniya 40-i godovshchine  
Kompartii Azerbaidzhana i pobedy Sovetskoy vlasti v  
Azerbaidzhane. Ist. 1960. 2. Nachel'nik Azerbaidzhanskogo  
Respublikanskogo kurortnogo upravleniya profsoyuzov (for  
Guseynov, M.M.). 3. Institut kurortologii i fizicheskikh  
metodov lecheniya im. S.M.Kirova (for Guseynov, A.G.).  
(Azerbaijan--Mineral waters)

GUSEYNOV, M.M.; YEGIAZAROV, A.G.; GUSEYNOV, A.G., red.; ALIYEVA, A.,  
red.izd-va; AKHMEDOV, S., tekhn. red.

[Brief manual on the health resorts of Azerbaijan] Krat-  
kii spravochnik po kurortam Azerbaidzhana. Baku, Azer-  
baidzhanskoe gos.izd-vo, 1964. 47 p. (MIRA 17:3)

\*

KOSTRYUKOV, Valentin Andreyevich; LIVCHAK, I.F., retsenzent; YEGIAZAROV,  
A.G., kand.tekhn.nauk, nauchnyy red.; NINEMYAGI, D.K., red.izd-va;  
ALEKSANDROVA, O.M., tekhn.red.

[Examples of calculations of heating and ventilation systems]  
Sbornik primerov rascheta po otopleniiu i ventiliatsii. Moskva,  
Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.materialam. Pt.1.  
[Heating] Otoplenie. 1960. 189 p. (MIRA 13:9)  
(Heating)

ORLOV, A.I.; SHCHEGLOV, V.P., dotsent, kand.tekhn.nauk, retsenzent;  
KOSTRYUKOV, V.A., inzh., retsenzent; YEGIAZAROV, A.G., kand.  
tekhn.nauk, nauchnyy red.; SMIRNOVA, A.P., red.izd-va;  
RYAZANOV, P.Ye., tekhn.red.

[Heating and ventilation] Otoplenie i ventilatsiia. Moskva,  
Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.materialam.  
Pt.1. [Heating] Otoplenie. 1960. 223 p. (MIRA 13:9)  
(Heating)

KAMENEV, F.N., doktor tekhn. nauk; BISOGLADENYI, V.N., kand. tekhn.  
nauk, dots.; FEGINIAOV, A.G., kand. tekhn. nauk, dots.;  
SKAMIAI, A.N., kand. tekhn. nauk, dots.; CHURILIN, V.P.,  
kand. tekhn. nauk, dots.; SPAROVNIKOV, I., nauchn. rec.

[Heating and ventilation] Otoplenie i ventilatsiya. Mo-  
skva, Stroizdat. Pt.1. 1965. 370 p. (MIRA 18-3)

YEGIAZAROV, Aleksandr Grigor'yevich; CHEREMUSHKIN, P.A., nauchn.  
red.; RYCHEK, T.I., red.

[Manufacture and installation of industrial ventilation  
systems] Izgotovlenie i montazh sistem promyshlennoi venti-  
liatsii. Moskva, Vysshaya shkola, 1965. 274 p.  
(MIRA 18:8)

ZAALISHVILI, M.M.; SURGULADZE, T.T.; YEGIAZAROVA, A.R.; GOGORISHVILI,  
Dzh.A.

Studying the interrelation of myosin A and myosin B with  
adenosine triphosphate by the method of electrophoresis.  
Soob. AN Gruz. SSR. 30 no.1:29-36 Ja '63. (MIRA 17:1)

1. Institut fiziologii AN Gruzinskoy SSR, Tbilisi.  
Predstavleno akademikom P.A. Kometiani.

12/53

S/725/61/000/003/005/008

AUTHORS: Yegiazarov, B.G., Dolenko, A.V., Aktipov, V.F., Krutyakov, Yu. A.

TITLE: An instrument for the measurement of the intensity of a magnetic field.

SOURCE: Nekotoryye voprosy tekhniki fizicheskogo eksperimenta pri issledovanii gazovogo razryada; nauchno-tekhnicheskii sbornik, no. 3. A.V. Chernetskii & L.G. Lomize, eds. Moscow. Gosatomizdat, 1961, 83-93. X

TEXT: The paper describes the design of an instrument for the measurement of the absolute magnitude and the direction of the magnetic-field force vector for individual points of fields within a range of 10 to 1,000 oersted and with nonuniformities of up to 15%/cm; the relative error of measurement throughout this range does not exceed 0.03%. The measuring range may be raised to 10,000 oe by a change in pickup heads. In order to eliminate errors due to nonuniformities in the angular velocities of the pickup induction coil, a compensation-type measuring technique is employed; in it a measuring coil rotates within the field to be measured, while a comparison coil, mounted on the same driveshaft, rotates within a known comparison field. Any unevenness of the angular velocity is reflected equally in the two coils, and the necessary error-eliminating expressions are developed and set forth. Criteria for the "punctuateness" of a small coil are presented. The

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An instrument for the measurement of the intensity... S/725/61/000/003/005/008

principal elements of the instrument are the pickup, the coordinate table, and the measuring unit. To ensure the "punctuateness" of the measuring pickup, the dimensions of the cylindrical coil were held down to a 5-mm dia, a 3.6-mm length, and a wire dia of 0.02 mm. The sensitivity of such a coil, at a speed of 25 rps, is  $720 \mu\text{v}/(\text{a}/\text{cm})$ . The coil is driven by a synchronous motor (1,500 rpm - not "rps" as stated in Russian original) via a conical gear transmission. Despite the 1.5-m length of the pickup device, required to achieve a long reach to cover the magnetic-intensity topography of extensive fields, the vibration of the coil does not exceed 0.01 mm. The collector of the coil consists of two silver rings and four graphite brushes. The measuring unit comprises a decade potentiometer, a null indicator, and a power-supply unit. A schematic circuit diagram is shown. Constancy in the total potentiometer resistance was achieved by pairing, in opposition to one another, identical decades of two KMC-6 (KMS-6) resistance units. As a result, very convenient contact potentiometers of 100 kohm (more accurately, 99,999 ohm) were obtained. The null indicator is a resonance amplifier tuned to the frequency of the emf produced in the coil. Since the a.c. hum constitutes the principal noise in the amplifier, the amplifier was tuned to 25 cps which, in turn, fixed the speed of the driver motor at 1,500 rpm. To achieve an elevated selectivity relative to the 50-cps frequency and its harmonics that might be produced by nearby powerful sources (motors, transformers, etc.), three resonance transformer stages with

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Permalloy cores were provided. Typical experimental data are shown and graphically mapped, including a measurement of a magnetic field with and without the introduction of a perturbation in the form of a ferrite body. Thanks are expressed to I. L. Shatokhin for his assistance. There are 8 figures and 3 Soviet (only) references.

ASSOCIATION: None given.

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42454

S/725/61/000/001/000-000

AUTHORS: Yegiazarov, B.G., Dolenko, A.V., Aktipov, V.F., Krutyakov, Yu.A.

TITLE: One of the piezoelectric methods for the measurement of a component of the magnetic field strength in a point.

SOURCE: Nekotoryye voprosy tekhniki fizicheskogo eksperimenta pri issledovanii gazovogo razryada; nauchno-tekhnicheskiiy sbornik, no. 3. A.V. Chernetskiy & L.G. Lomize, eds. Moscow. Gosatomizdat, 1961, 94-104.

TEXT: This paper describes a "punctuate" field-strength-measuring device capable of measuring a component of the intensity of a constant magnetic field in a prescribed point in space with an accuracy of 0.5%. The distance between the pickup and the measuring unit may be of the order of tens of meters. The sensor consists of a tightly wound cylindrical coil (cf. Kamenskiy, Ye.I., et al., Elektronika, no. 10, 1958, 109). The passage of an electric current through the coil evokes the action of a couple in the direction of an alignment of the coil axis with the magnetic field. If the current is alternating with an audio frequency, the coil will oscillate about an axis lying within the plane of the coil perpendicular to the magnetic-field line of force passing through the center of the coil. The new device employs a piezoelement tied to the coil which is forced to oscillate with it and which produces an emf

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One of the piezoelectric methods ...

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that is proportional to the magnetic field strength  $H$  and the constant current  $I_{\text{coil}}$ , thus yielding a measure of the projection of the field strength onto the plane of the coil windings. This principle is well known, but its earlier embodiments (Birebent, R., C.r.Acad.sci., v.234, no.11, 1952, 1135; v.241, no.4, 1955, 368; v.249, no.10, 1955, 1064) failed to provide a means for the identification of the direction of the field-strength component thus measured. The new device achieves the determination of the field-strength projection onto the axis of the piezoelement, i.e., at a given point and for a given direction. The coil is supported by a bimorphic Ba-titanate ceramic beam which is thicknesswise polarized. Torsional oscillations yield a zero emf, and any emf arising in it is proportional to the projection of the magnetic-field strength onto the beam axis only. The phase difference between the output voltage of the piezoelement and the sinusoidal coil-feed current will also yield an indication of the sense of the magnetic field. The sensitivity of the device is increased by tuning the feed current in resonance with the proper flexural frequency of the coil-piezoelement-holder system. Laboratory tests are described and illustrated in schematic cross-sections and photographs; the effectiveness of the resonance tuning on the amplitude of the output signal is shown; it was found that input-current limitations imposed a practical magnetic-field strength threshold of 10 oersted, below which the needed input currents become too high to be tolerable. Noise induction from the coil to the metallized sheath of the piezoelement can be eliminated by covering the coil with "aquadag" graphite lubricant. The two halves

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One of the piezoelectric methods...

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of the coil and the piezoelement must be pasted together exactly coaxially to eliminate any errors due to torsionally produced shifts in the minimum signal. The details of the audio-frequency generator which feeds the sensor coil, the electronic characteristics of the piezoelement, the amplifier, the capacitive phase-shifter required for the compensatory piezoelement-voltage comparison, the compensation unit itself, and the use of the null indicator to establish the attainment of the compensation are fully explained. The pickup is maintained at a constant temperature of  $50 \pm 0.5^\circ\text{C}$ . All individual allowances are based on the specified summary error of measurement, which is not to exceed 0.5%. If two or three mutually perpendicular piezoelements are used, then two or three components can be measured simultaneously, with the only stipulation that the centers of the coils must not be more than, say, 3.5 mm apart to ensure reasonable simulation of local punctuate coincidence. The same result, of course, can be attained by a  $90^\circ$  rotation of a single coil. Thanks are expressed to L. Z. Rusakov for his substantial assistance in the project. There are 8 figures and 12 references (6 Soviet, 3 French, 1 English-language, and 2 Russian translations of English-language writings).

ASSOCIATION: None given.

Card 3/3

ACC NR: AT7008897

SOURCE CODE: UR/0000/66/000/000/001.2/0052

AUTHOR: Gol'danskiy, V. I.; Ygiazarov, B. G.; Shantarovich, V. P.

ORG: none

TITLE: Chemistry of positronium and the angular correlation of annihilation gamma quanta

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Fizika elementarnykh chastits, 1966, 48-58

TOPIC TAGS: positronium, positron

SUB CODE: 20

ABSTRACT: The article deals with an investigation by the authors of the angular correlation and lifetime of positrons in aqueous solutions. The results obtained are subjected to a systematic comparison and analysis on the basis of kinetic equations which express three cases of positronium reaction: (1) conversion (transition of orthopositronium to parapositronium), (2) oxidation, and (3) combination conversion and oxidation. In the angular correlation study the authors make use of both the TRUMPY [Phys. Rev., 118,668(1960)] and the DE ZAFRA [Phys. Ref., 113,1547 (1959)] method for evaluating changes in the contribution of the narrow component. The results are compared with those of TRUMPY. Orig. art. has: 5 figures, 11 formulas and 1 table. [JPRS]

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UDC: 539.1

12456

S/775.61/000/000/000/000

AUTHORS: Yegiazarov, B.G., Maksimov, L.A., Sazykin, A.A.

TITLE: On the possible investigation of high-concentration plasma with respect to the angular distribution of two-photon annihilation of positrons.

SOURCE: Nekotoryye voprosy tekhniki fizicheskogo eksperimenta pri issledovanii gazovogo razryada; nauchno-tekhnicheskii sbornik, no. 3. A. V. Chernetskii and L.G. Lomize, eds. Moscow. Gosatomizdat. 1961, 114-121. X

TEXT: The paper lays the theoretical groundwork and proposes a possible experimental configuration for the measurement of the angular distribution of the two-photon annihilation (which is appreciably more probable than the one- and three-photon processes) as a means for determining the energy spectrum and, consequently, the electron temperature  $T_e$  of the plasma. The velocity distribution of the electrons and positrons is assumed to be Maxwellian, with a uniform temperature,  $T$ . Since the probability of annihilation of fast positrons is extremely small (W. Heitler. Quantum theory of radiation. Cited in Russian translation, Foreign Publ. House. Moscow, 1956) the nonrelativistic case only is examined. A device is proposed in which an annular detector with a specified subtended angle

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On the possible investigation of high-concentration ...

will pick up all those photons which fly out under that angle, and the distribution of the number of coincidences per unit time versus a range of angles will yield a curve having a maximum, the location or the semiwidth of which yields a measure of the electron temperature of the plasma. On the other hand, for a given positron concentration  $n_+$ , the value of the angular-distribution maximum provides an indication of the electron concentration of the plasma and its electron-energy spectrum. An analysis of the "braking" of fast positrons injected from outside into the plasma shows that positrons with energies in excess of 10 keV have so long a braking time, that the probability of their passing through a test setup about 1 m in size without annihilation is very great throughout the range of concentrations investigated. Thus, for plasma electron concentrations of  $n = 10^{15}$  to  $10^{17} \text{ cm}^{-3}$ , positron energies not to exceed 10 keV are mandatory, with positron concentrations of the order of  $n_+ = 10^4$  to  $10^6 \text{ cm}^{-3}$ . Special positron sources may be required to make available slow positrons in such concentrations. Recent work on the accumulation of fast positrons in a magnetic trap (Gibson, G., et al., Phys. Rev. Lett., v. 5, no. 4, 1960; Korobochko, Yu. S., et al., ZhTF, v. 30, no. 8, 1952, 981-984) offers much promise. A related study (apparently unpublished) on the determination of the electron temperature of a plasma from the angular correlation during two-photon annihilation (Gol'danskiy, V.I., Physics Institute imeni P.N. Lebedev, AS USSR, 1958) is cited, together with

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On the possible investigation of high-concentration ... S/725/61/000/004/001/001-

an expression for the angular distribution and the relationship between the semi-width of the distribution and the plasma electron temperature proposed therein. There are 4 figures and 3 references (3 Soviet and 5 English-language, of which the Heitler book is cited in Russian translation). X

ASSOCIATION: None given.

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ATLASOV, I.P.; DEMOKIDOV, K.K.; DIBNER, V.D.; YEGIAZAROV, B.Kh.; IVANOVA,  
A.M.; LOBANOV, M.F.; MARKOV, P.O.; RASKIN, M.I.; RAVICH, H.G.;  
SAKS, V.H.; SOKOLOV, V.H.; TKACHENKO, B.V.; USTRITSKIY, V.I.;  
NALIVKIN, D.V., nauchnyy red.; VASIL'YEV, R.P., red.; SOLOV'YEV,  
L.D., red.; NEKHOROSHEV, A.P., red.; DOIGONOS, L.G., tekhn. red.

[Geological map of the Soviet Arctic] Geologicheskaya karta  
Sovetskoi Arktiki. Sost. I.P. Atlasov [i dr.] Glav. red. P.G.  
Markov. .... Nauchn. red. D.V. Nalivkin. [Moskva] 1957. ... Col.  
map 89 x 131 cm. no. 4 sheets 51 x 72 cm. ... Scale 1:2,500,000.  
.. Inset: [Geological map of Wrangel Island] Geologicheskaya karta  
Ostrova Vrangeliya, 1:1,500,000. (MIRA 11:8)  
(Arctic regions--Geology--Maps)  
(Wrangel Island--Geology--Maps)

YEGIAZAROV, B.Kh.

~~Geological description of the Severnaya Zemlya archipelago. Trudy~~  
Nauch.-issl. inst. geol. Arkt. 81:388-423 '57. (MIRA 11:5)

1. Rukovoditel' ekspeditsii na Severnuyu Zemlyu Nauchno-issledovatel'-  
skogo instituta geologii Arktiki Glavsevmorputi.  
(Severnaya Zemlya--Geology)

YEGIAZAROV, B.Kh.

Devonian sediments in the western part of the Severnaya Zemlya  
archipelago. Trudy NIIGA 67:13-35 '58. (MIRA 12:10)  
(Severnaya Zemlya--Geology, Stratigraphic)

RUSAKOV, I.M.; YEGIAZAROV, B.Kh.

Pre-Cambrian and Paleozoic stratigraphy of the western part  
of the Koryak Range. Trudy nauch.-issl. inst. geol. Arkt. 85:  
3-19 '58. (MIRA 12:8)  
(Koryak Range--Geology, Stratigraphic)

YEGIAZAROV, B.Kh.

Basic geological characteristics of the northwestern slopes of the  
central Koryak Range. Inform.biul.NIIGA no.14:41-50 '59.

(MIRA 13:7)

(Koryak Range--Geology)

YEGIAZAROV, B.Kh.; ZAKRZHEVSKIY, G.A.

Cenozoic volcanism in the eastern Koryak Range. Trudy NIIGA 114:  
135-146 '60. (MIRA 13:11)

(Koryak Range--Volcanoes)

YEGIZAROV, B.Kh., kand. geol.-miner. nauk, red.; LUCHKO, V.S., red.  
12d-va; IL'INSKAYA, G.M., tekhn. red.

[Geology of the Koryak highland] Geologiya Koriakskogo nagor'ia.  
Pod red. B.Kh.Egizarova. Moskva, Gosgortekhnizdat, 1963. 210 p.  
(MIRA 16:8)

1. Moscow. Nauchno-issledovatel'skiy institut geologii Arktiki.  
(Khabarovsk Territory--Geology)



L 37658-65 EWT(1) GW  
ACCESSION NR: AP4041400

S/0020/64/156/006/1341/1342

AUTHOR: Atlasov, I. P.; Vakar, V. A.; Dibner, V. D.; Yegiazarov, B. Kh.; Zimkin,  
A. V.; Romanovich, B. S.

TITLE: A new tectonic map of the Arctic

SOURCE: AN SSSR. Doklady, v. 156, no. 6, 1964, 1341-1342 and inserting facing  
p. 1342

TOPIC TAGS: tectonic map, cartography, earth crust

ABSTRACT: A report on a tectonic map of the Arctic and Subarctic finished at the  
Institute of Arctic Geology in 1963. This map, which is drawn to a scale of  
1:5,000,000, shows clearly the structural development of geological formations,  
strata and substrata of various ages and formed under various tectonic conditions.  
An important feature of the map is the attempt for the first time to use a single  
system of conventional symbols to designate the tectonic structure of dry land,  
shelf and ocean floor. A large part of the Arctic and Subarctic territory which  
corresponds to the continental part of the crust is divided on the map into fold-  
ed systems, recent geosynclines and parageosynclines. The folded systems are  
then subdivided into two groups: fundamentally Precambrian systems which have

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ACCESSION NR: AP4041400

gone through the postgeosynclinal development stage and have been transformed into platforms; Paleozoic and Mesozoic systems which are still in the postgeosynclinal development stage. The recent geosynclines are subdivided into two groups: mature Cenozoic folded systems which have entered (or are entering) the postgeosynclinal development stage; young systems which are still in the beginning stages of geosynclinal development. The parageosynclines are subdivided on the map into three groups: peripheral geosynclines which have been transformed into downwarps; inner zones confined to the central mountain masses within the folded regions; a few oceanic depressions. Orig. art. has: 1 figure.

ASSOCIATION: Nauchno-issledovatel'skiy institut geologii Arktiki (Scientific Research Institute of Arctic Geology)

SUBMITTED: 17Mar64

ENCL: 00

SUB CODE: ES

NO REF SOV: 000

OTHER: 000

Card

2/2

CM YEGIAZAROV, G.M.

12

Determination of fat in prepared foods by nondescript (Gor-  
ber method. G. M. Yegiazarov. *Gigiena i Sanit.* 1950,  
No. 3, 45-7. The method outlined by Golovinski and  
Kagan (*ibid.* 1946, No. 3) is satisfactory provided that the  
food sample is thoroughly agitated with  $\text{Na}_2\text{CO}_3$  solu-  
tion while heating on a steam bath, followed by transfer of the  
suspension to the lactometer, and centrifuging with alc.  
methyl. (1 part  $\text{AmOH}$  to 6 parts  $\text{RtOH}$  with a drop of  
phenolphthalein); after 3-5 min. at 65-70° the sepd. fat  
layer is measured. Said.  $\text{Na}_2\text{CO}_3$  solu. must be used, as  
lower concns. give consistently low results. G. M. K.

of the Sanitary-Epidemiological  
Unit of the Carpathian Military  
Okrug.

YEGIAZAROV, G. M.

"Concerning Laboratory Investigation of the Caloric Value and Chemical Composition of Food Rations." Sub 31 May 51, Moscow Inst of National Economy imeni G. V. Plekhanov

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

YAGLAZAROV, G.M., inzhener-mayor

Rating Subbotin's method for determining ammonia. Voen.-med. zhur.  
no.6:87 Je '51. (MLRA 9:9)  
(AMMONIA) (COLORIMETRY)

YEGIZAROV, G.M.

Portable outfit for the chlorination and coagulation of water. Sig. 1 san.  
no. 7:44 J1 '53. (MLRA 6:7)  
(Water--Purification)

YEGIAZAROV, G., kand. tekhn. nauk.

Action of ionizing radiation on meat. Mias. ind. SSSR 28 no.6:51-  
53 '57. (MIRA 11:1)

(Radiation sterilization) (Meat)

YEGIAZAROV, G.M.

Elucidation of the problem of using ionizing radiation for the preservation of food ("Research in the science and technology of food preservation" [in English] by R.S. Hannan. Reviewed by G.M. Egiazarev). Kons. i ov. prem. 13 no.12:35-36 D '58.

(MIRA 11:12)

(Radiation sterilization)



YEGIAZAROV, G.M. (Moskva)

Aftereffect of ionizing radiation on vitamin C and carotene in  
certain preparations and food products. [with summary in English].  
Vop.pit. 17 no.5:9-11 8-0 '58 (MIRA 11:10)

(RADIATIONS, effect.

ionizing, on carotene & vitamin C in food products  
(Rus))

(CAROTENE,

eff. of ionizing radiations on carotene in food  
products (Rus))

(VITAMIN C

eff. of ionizing radiations on vitamin C in food  
products (Rus))

YEGIAZAROV, G., kand. tekhn. nauk

Effect of gamma radiation on grain. Muk.-elev.prom. 24 no.2:17-18  
F '58. (MIRA 11:4)

(Grain) (Gamma rays)

YEGIAZAROV, G.M., kand. tekhn. nauk.

Effect of ionizing radiation on edible fats. Masl.-zhir. prom. 24  
no.2:18-20 '58. (MIRA 11:3)  
(Oils and fats, Edible) (Radiation sterilization)

YEGIAZAROV, G.M., land.tekhn.nauk, inzhener-podpolkovnik

Effect of gamma rays on edible fats. Voen.med.zhur. no.3:60-  
63 '59. (MIRA 12:6)

(GAMMA RAYS, eff.  
on nutritive fats (Rus))  
(FATS  
eff. of gamma rays (Rus))

YEGIAZAROV, G.M.

Radioactive sterilization of drugs and medical supplies.

Med.prom. 13 no.4:12-16 Ap '59.

(MIRA 12:6)

(RADIATION STERILIZATION)

RABINOVICH, R.I.; YEGIAZAROV, G.M.; KOROLEVA, Ye.I.; IVANOV, N.A.

Characteristics of nutritive properties of quick-cooking food  
concentrates. Kons. i ov. prom. 14 no.9:19-22 S '59.  
(MIRA 12:12)

(Food, Concentrated)

YEGIAZAROV, G.M., kand. tekhn. nauk

"Increasing the stability of fats and fat-containing products"  
by B.IA. Golant, N.A. Petrov. Reviewed by G.M. Egiazarov.  
Masl.-zhir. prom. 25 no.7:47-48 '59. (MIRA 12:12)  
(Oils and fats) (Golant, B.IA.) (Petrov, N.A.)

YEGIAZAROV, G., kand. tekhn. nauk

Radiolysis of animal fats under the influence of low dosage of  
gamma rays. Mias. ind. SSSR 30 no.5:51-53 '59. (MIRA 13:1)  
(Oils and fats) (Gamma rays)



YEGIAZAROV, G.M. (Moskva)

Safety of using in the diet, products sterilized by ionizing  
radiations. Vop.pit. 19 no.1:63-67 Ja-F '60. (MIRA 13:5)  
(FOOD radiation effects)  
(FOOD ADDITIVES)

YEGIAZAROV, G.M., inzhener-podpolkovnik, kand.tekhn.nauk; IVANOV, N.A.,  
kand.med.nauk

Methods of hygienic evaluation of new concentrated food products.  
Voen.-med.zhur. no.4:66-69 Ap '60. (MIRA 14:1)  
(FOOD, CONCENTRATED)

YEGIAZAROV, G.M. (Moskva)

Effect of low doses of gamma rays on the preservation of vitamins  
in food products. Vop.pit. 19 no.4:54-58 JI-Ag '60. (MIRA 13:11)  
(VITAMINS) (GAMMA RAYS--INDUSTRIAL APPLICATIONS)

YEGIAZAROV, G.M., kand.tekhn.nauk, inzh.-podpolkovnik

Method for determining proteins in food products and prepared food  
under field conditions. Voen.-med. zhur. no. 2:34-37 F '61.

(MIRA 14:2)

(FOOD—ANALYSIS) (PROTEINS)

YEGIAZAROV, I.

New standards for weight parameters and over-all dimensions  
of motortrucks and tractor trains. Avt.transp. 38 no.3:  
39-40 Mr '60. (MIRA 13:6)  
(Motortrucks--Standards) (Tractor trains--Tractors)

YEGIAZAROV, I.; SOKOLOV, Yu.

Standardization of tanks mounted on motortrucks and trailers.  
Avt. transp. 41 no.5:41-42 My '63. (MIRA 16:10)

(Tank trucks--Standards)

YEGIAZAROV, I.V.

The theory of similitude and the application of the laws of similitude to phenomena of unsteady motion [with summary in English]. Izv.AN Arm.SSR.Est.nauki no.3:3-29 '47. (MLRA 9:8)

1. Deystvitel'nyy chlen Akademii nauk Armyanskoy SSR.  
(Dimensional analysis) (Hydraulic models)

YEGYAZAROV, I. V., Acad. (of the Academy of Sciences of the Armenian S. S. R.)

Hydraulics

Investigation of wave phenomena at installations of the Kyubyshev hydro development.  
Vest. AN SSSR 22 no. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.



1. YEGYAZAROV, I. V.
  2. USSR (600)
  4. Waves
  7. Investigation of wave phenomena in hydroelectric plant installations on navigable rivers and methods for reproducing them in three-dimensional models. Izv. AN SSSR. Otd. tekhn. nauk. No. 2, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953. Unclassified.

YEGIAZAROV, I.V.

Tasks for the scientific research of performance conditions for hydroelectric power systems and of their automatic control. Izv. AN Arm. SSR, Ser. FMET nauk 6 no.1:9-42 Ja-F '53. (MLJA 9:8)

1. Deystvitel'nyy chlen AN Armyanskoy SSR.; 2. Vodno-energeticheskiy institut AN Armyanskoy SSR.  
(Hydroelectric power stations)

YEGIAZAROV, I. V.

USSR/Electricity - Personalities  
Hydroelectric Power

Jun 53

"Professor I.V. Yegiazarov: His 60th Birthday,"  
N.Kh. Arutyunyan, G.A. Osipov

Elektrichestvo, No 6, p 90

Reviews professional life of Prof Yegiazarov, Dr  
Tech Sci, born 6 Jan 1893. An eminent scientist  
in hydroelec power eng, specialist in wave motion,  
he founded a hydroelec lab that became part of  
the present Sci Res Inst of Hydraulic Eng, Min of  
Elec Power Stas and Elec Industry. Prof at Yerevan

268T62

Polytech Inst 1948-53, he is director of Water-  
Power Eng Inst, Acad Sci ArmSSR, deputy to Supreme  
Soviet USSR, holder of Order of Lenin (1951) for  
advancement of Soviet Science.

268T62

YEGIAZAROV, I.V.

"Modeling of the Phenomena of Unsteady Wave Motion in Unconfined and Confined Flows." Izv.Akad.Nauk SSSR Otd. tekhn.Nauk no.10, 1417-1427, Oct., 1953.

Study of the Partial differential equations shows three dimensionless similitude criteria representing Froude number, time scale, and friction, respectively, which govern modeling of unsteady free surface wave phenomena. Similarly, four criteria representing Froude number, time scale, elasticity, and friction govern modeling of unsteady flow in closed conduits.

Modeling of such flows is very fully considered in the general case and also under two simplifying assumptions, namely, (1) neglecting friction and Mach number but not elasticity, as in Joukowski's classical water hammer theory, and (2) neglecting Mach number but not friction or elasticity. Particular attention is paid to the desirability of distorting geometric scale, the correlation with scaling of the power of the machinery. Recent papers by Larras, Devderiani, and Luniakina are briefly criticized.

Reviewer notes two material errors which do not, however, invalidate the paper as a whole: (a) in Eq.(18) the introduction of Mach number is used erroneously to eliminate the time scale criterion--it is the Froude no. which should be eliminated; and (b) Eq.(20) contains a misprint.

YEGIAZAROV, I. V.

USSR/Physics - Hydraulics,  
Water Hammer

21 Sep 53

"Modelling of Water Hammer," I.V. Yegiazarov, Act  
Mem Acad Sci, Geor SSR, Water Power Inst, Acad Sci  
Geor SSR.

DAN SSSR, Vol 92, No 3, pp 495-497

Analyzes differential eqs of nonstationary shock-  
waves taking into account elasticity and friction.  
Selects a scale convenient for laboratory tests.  
Presented 23 Jul 53.

268189

YEGIZAROV, I.V., deystvitel'nyy chlen.

Models of river-bed formation processes. Dokl.AN SSSR 92 no.4:715-717 0 '53.  
(MLRA 6:9)

1. Akademiya nauk Armyanskoy SSR. 2. Vodno-energeticheskiy institut Akademii  
nauk Armyanskoy SSR. (Hydraulic models)

EGIAZAROV, I. V.

B. T. R,  
June 1954  
Fluid Mechanics

8037\* Modeling Hydraulic Hammer Under Special Condi-  
tions of ~~Dynamic~~ Modeling of an Entire Hydroelectric  
System. (Russian) I. V. Egiazarov. Doklady Akademii Nauk  
SSSR, v. 92, no. 8, Oct. 11, 1954, p. 899-902.  
Analysis of dimensionless coefficients shows it is possible to  
distort scale of length, pressure, and diameter without distorting  
cross section of water flow. 4 ref.

3/31/54

YEGIAZAROV, I. V.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

| <u>Name</u>                 | <u>Title of Work</u>                                 | <u>Nominated by</u>     |
|-----------------------------|--|-------------------------|
| <u>Yegiazarov, I. V.</u>    | "Investigation of Wave                               | Water Power Engineering |
| <u>Yegiazaryan, B. O.</u>   | Phenomena in Installations                           | Institute, Academy of   |
| <u>Tikhonov, B. S.</u>      | of the Kuybyshev Hydroelectric Sciences Armenian SSR |                         |
| <u>Dzhrbashan, V. M.</u>    | Network"   |                         |
| <u>Zhamagortsyan, V. N.</u> |  |                         |

80: W-30604, 7 July 1954



VAZHNOV, Aleksandr Nikolayevich; YEGHIAZAROV, I. V., redaktor; KHACHATRYAN, A.S.,  
redaktor izdatel'stva; KAPLANYAN, M.A., tekhnicheskii redaktor

[Multiannual mean flow of rivers of the Armenian S.S.R. and the annual  
mean stream] Srednii mnogoletnii stok rek Armianskoi SSR i ego vnutri-  
godovoe raspredelenie. Erevan, Izd-vo Akademii nauk Armianskoi SSR,  
1956. 154 p. (MLRA 10:1)  
(Armenia--Rivers)

YEGIAZAROV, I.V. (Yerevan)

Transport capacity of an open-channel flow. Izv.AN SSSR Otd.tekh.nauk  
no.2:93-108 P '56.  
(Sedimentation and deposition) (Hydrology) (MLNA 9:7)

YEGIAZAROV, I.V., akademik

A general equation of the limit transporting capacity of cohesionless sediment in open channels. Dokl.AN SSSR 107 no.4:525-528 Ap '56.  
(MIRA 9:7)

1. Akademiya nauk ArmSSR.  
(Sedimentation and deposition)

8(6), 14(6)

SOV/112-59-4-6681

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 4, p 42 (USSR)

AUTHOR: Yegiazarov, I. V.

TITLE: Theory of Simulation of Water-Power Systems That Allows for a Hydraulic Impact

PERIODICAL: V sb.: Mezhevuz. konferentsiya po primeneniyu fiz. modelirovaniya v elektrotekhn. zadachakh i matem. modelirovaniya. M., 1957, pp 51-54

ABSTRACT: Some projects carried out by the Vodnoenergeticheskiy institut (Water-Power Institute), Armenian AS, on simulating a water-power system with an allowance for hydraulic impact are described. The following points are considered: methods for investigating the water-power systems and for classifying the models; the role and importance of various model types; simulating the hydraulic impact within the water-power-system simulation; staging the laboratory and actual investigations of transients in power systems.

Yu.M.S.

Card 1/1

Yegiazarov, I. V.

24-11-19/31

AUTHORS: Yegiazarov, I. V., Kartvelishvili, N. A., Pervozvanskiy, A. A.  
(Yerevan, Moscow, Leningrad)

TITLE: On the influence of an air filter rubber hose during  
simulating on models of an hydraulic shock.  
(K vliyaniyu rezinovogo shlanga s vozdukhom pri modeli-  
rovanii gidravlichesкого udara).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh  
Nauk, 1957, No.11, pp.160-166 (USSR)

ABSTRACT: In earlier work published by one of the authors (Refs.1  
and 2) the theory was evolved of hydraulic simulation on  
models of non-steady state movements inside pressure  
systems. Four similarity criteria were derived for the  
general case and two criteria for the conditions of  
hydraulic impact, i.e. for the ordinary case of dis-  
regarding the friction and the ratio of the speed of flow  
to the speed of the shock wave as compared to unity.  
From the obtained relations and from the condition that  
all the time constants should be equal in the nature and  
in the model, it follows that the geometrical scale  
 $\alpha = 10$  to  $20$ , i.e. the speed of the shock wave should  
be considerably slower in the model than in the natural  
Card 1/3 object. This condition imposes the necessity of simulating

24-11-19/31

On the influence of an air filter rubber hose during simulating on models of an hydraulic shock.

an hydraulic impact under conditions of simulating the entire power system, i.e. its hydraulic, mechanical and electrical parts. A decrease in the wave speeds can be effectively obtained by fitting inside the piping an air filled rubber hose. It is proved by theoretical analysis that the difference in the non-steady state processes do not differ materially in such a system from that pertaining in an ordinary piping and that this system does indeed result in a considerable reduction of the wave speeds. The theoretical proof was also confirmed by the experimental results of Z. A. Zoryan obtained in 1955 on a short model (20.5 m long, 640 mm dia) piping, which contained a 160 mm dia. rubber hose, in the Hydraulic Power Systems Laboratory of the Water Power Institute (Vodno-energeticheskiy Institut) (Refs. 2 and 4) and also in experiments in 1956 and 1957 with a longer (67.5 m) piping of an equal diameter and an equal rubber hose diameter. The results of these experiments are reproduced in the graphs, Figs. 2 and 3, p.165, and these show that the hydraulic shock has an equal time characteristic, both in the water of the piping (curves 1)

Card 2/3

On the influence of an air filter rubber hose during simulating on  
models of an hydraulic shock. 24-11-19/31

and in the air of the hose (curves 2) and that the speed  
of propagation of the shock wave equals 60 m/sec, i.e. it  
is 15 times smaller than the calculated speed for a piping  
not containing such a hose. Consequently, the possibility  
of simulating on models of an elastic hydraulic impact  
under conditions of simulating an hydraulic power system  
is proved theoretically as well as experimentally.  
There are 3 figures and 4 references, all of which are  
Slavic.

SUBMITTED: June 11, 1957.

AVAILABLE: Library of Congress.

Card 3/3

YEGIAZAROV, I.V.

Problems in modeling hydraulic power systems with consideration of  
the hydraulic-impact effect. Nauch. dokl. vys. shkoly; energ. no.1:  
207-210 '58. (MIRA 11:10)

1. Vodno-energeticheskiy institut AN Armyanskoy SSR.  
(Hydraulic models)



*Yegiazarov, I.V.*

AUTHORS: *Yegiazarov, I.V.*, Member AS Armenian SSR, 105-58-5-21/28  
*Neyman, L.R.*, Corresponding Member AS USSR

TITLE: On the Dynamic Models of Power Systems (O dinamicheskikh modelyakh energosistem)

PERIODICAL: Elektrichestvo, 1958, Nr 5, pp. 83-85 (USSR)

ABSTRACT: Comment on the article by I.S.Bruk in Elektrichestvo, 1958, Nr 2: 1.) By 1953 the problems of modelling hydraulic percussion had not been solved either experimentally or theoretically. The solution of the theoretical part was published by the author Yegiazarov in 1953 (Ref 1). On this theoretical basis a complete model of a hydraulic power system with a physically modeled hydraulic part was constructed at the VENI (Institute for Hydraulic Power) of the AS Armenian SSR (Refs 1,9,10). In the course of investigations of a general character B.L.Buniatyan (VENI) succeeded in obtaining the characteristics of the moment of any inclination, i.e. the universal model of a water turbine in a wheel (Ref 11) with the aid of quite simple means and a model wheel of the K-245-type. The model of the hydraulic power system of the VENI (Ref 1) shows all parts of the system. The laboratory is able to modify the moment of the

Card 1/3

On the Dynamic Models of Power Systems

105-58-5-21/28

model aggregate within a wide range: the time constant amounts to from 6 to 20 secs. Apart from the 800 km line model also consumption load is modeled. Three hydraulic power stations are represented by the VENI model. On this complete physical model of VENI a number of investigations were carried out for the Armenian power system, and, in cooperation with the laboratory of the Institute of Power Engineering at Moscow the hydraulic power station of Kuybyshev was investigated. - These data are the reply to the doubts expressed by Bruk in his article. Bruk's basic error consists in the fact that he compares physical with mathematical modeling. The true solution of the problem is found by the joint application of these methods and all possibilities of calculation. 2.) Nobody will doubt the possibilities offered by computers. In the case of complicated and as yet unsolved problems it is not quite sure whether the phenomena observed are also fully expressed by the equations set up. In these cases physical modeling is of great importance. Bruk deals with only one side of the problem, and that is his main mistake. He deals only with old problems and devotes too little attention to new ones. There are 11 references, 9 of which are Soviet.

Card 2/3

On the Dynamic Models of Power Systems

105-58-5-21/28

ASSOCIATION: Energeticheskiy institut im. Krzhizhanovskogo Akademii nauk SSSR  
(Institute for Power Engineering imeni Krzhizhanovskiy, AS USSR)

AVAILABLE: Library of Congress

1. Water power--Equipment
2. Power plants--Model test results
3. Power plants--Theory

Card 3/3

SOV/24-58-10-5/34

AUTHOR: Yegiazarov, I. V. (Yerevan)

TITLE: On Simulating on Models Power Systems and Hydraulic Shocks  
(O modelirovanii energosistemy i gidravlichesкого udara)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, 1958, Nr 10, pp 27-33 (USSR)

ABSTRACT: The influence of the hydraulic impact on the transient process of a hydraulic generator, i.e. the influence of the inertia of the hydraulic masses in the pressure piping, the spiral chamber of the turbine and the suction tube, is commensurate with the influence of the mechanical masses of the generating set. Oscillation processes in other elements of the hydraulic systems of a hydraulic power station are very slow, their time constant is large and is not commensurate with the constants of inertia of the generating sets except for certain cases which have been discussed by Kartvelishvili (Ref.14). If pressure piping is present, particularly in derivation stations, the spiral chamber of the suction tube of the turbine will usually form a very minor part of the hydraulic pressure system of the turbine and only the pressure

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